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ABSTRACT

Ten predictors of academic performance and persistence for adult college students were studied with 100 college juniors and seniors at Mercy College. The 10 variables are: time spent at work/employment, ability to pay for education, time spent at study, place of study, ability to get to school, ability to get course of choice, ability to get a "good" schedule, desire to join groups or clubs, getting school advisers to help, and ability in math or reading (self-assessed). It was proposed that the variables representing total external locus of control were time spent at work and cost of education. Administration of a questionnaire allowed students to indicate the variables they felt most in control of, using 37 triads of forced choices. Variables on which students felt the most control, in order of most to least control, were: getting to school, joining clubs/groups, time to study, place to study, ability to set their own schedule, ability to get particular courses/sections, ability to get advice from counselors/advisers, and ability in reading and mathematics. A significant difference between external and internal locus of control was found. It is concluded that retention rates can be increased if students are allowed to be self-determining. Additional implications for the college are noted. (SW)

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Causal Attribution of Control on Ten Variables Effecting Student Attrition/Retention in College

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BACKGROUND

The literature on achievement and persistence of adult college students abounds and will continue to do so as long as institutions seek to recruit and provide services for the non-traditional student. Adult populations in formal education have kept a faster growth rate than the population itself. The perid of 1970 to 1977 saw students aged 25 to 34 account for approximately 50% of the increase in national figures for junior and community college enrollment and about 33% of the increase reported by colleges and universities (Tatham, 1978). Faced with the fact that by 1990 students between the ages of 17 to 23 could decline by 1/3 or more (Foote, Klein & Williams, 1982), researchers are very aware that studies are needed in the areas of attrition and retention.

One means of focusing on improving retention of the

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college student is to identify the motivational factors and manipulate them so as to improve the individual's self-concept and feeling of effectance in the environment.

One explanation for the difference in positive self concept is the cause-and-effect relationship one can perceive with the environment. Both Weiner (1972) and Kulka (1972) postulated intrinsic/extrinsic motivation working in conjunction with locus of control in terms of stable or unstable attributions. Their basic assumption is that when one can attribute to one's set of actions an effect on the environment, one gains a positive feeling about self and becomes more self-initiating.

Summarizing the work of Weiner and Kukla, four tenets may be ellicited for study.

1) Success or failure may be ascribed to ability, level of motivation, effort, fortuosity, outside agents (others), and the level of difficulty of the task.
2) Intrinsic and extrinsic motivation do not inherently explain achievement orientation.
3) Stability of causal agents adds to the explanation of achievement orientation. Effort is seen as being

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instable. Ability is seen as being stable.
4) Controllability is a third agent of achievement orientation.

Although stated in different terms, Deci (1980) sees self-determination as being derived from the principles of motivation which explain that force which causes one to act or perform. Thus, free will or choice is seen as a product of some predetermined dispositions and/or conditions. He defines it as "the capacity of the human organism to choose how to satisfy its needs."

The ramifications of this are twofold: first, there are behaviors to execute tension reduction that are not fixed-action patterns. Therefore, cognition and choice exist. Secondly, rather than coming to rise, the person is put in control of managing these tensions and is given a more positive position in terms of responsibility for self. Causality, then, is the tool to produce a positive self image within the context of the

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environment. Deci's work shows that intrinsic and extrinsic motivation are more than complements, they work to counter each other. Experiments showed that when one was intrinsically motivated, the introduction and reinforcement by extrinsic means decreased the motivation to perform. The task was given new direction and seen in the non-preferred light of other type of motivation.

This change in perceived locus of causality stems from the work of deCharms and Heider. Deci states that "people feel self-determining when they perceive the locus of causality to be internal and they feel nonself-directing when they perceive the locus of causality to be external." This last note seems to return us to the work of Weiner and Kukla.

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PURPOSE OF THE STUDY

This research was aimed at analyzing the ten strongest predictors of academic performance and persistence for adult college students as indicated by the literature (Aslanian & Brickell, 1980; Cross, 1979; Heath, 1977). The ten variables were:

a) time spent at work/employment
b) ability to pay for education
c) time spent at study
d) place of study
e) ability to get to school
f) ability to get course of choice
g) ability to get a "good" schedule
h) desire to join groups or clubs
i) getting school advisors to help
j) ability in math or reading (self-assessed)

It was hypothesized that there would be a significant difference between external and internal locus of control. It was also hypothesized that little or no difference would exist between measures that would compile external or internal evaluation. That is, that scores on above variables f, g, and i

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would constitute measures of external locus of control, but little or no variance would exist between them. The same was hypothesized for the variables c, d, and e which composed the index of internal locus of control.

METHOD

100 college juniors and seniors at Mercy College, a private, four year institution in Westchester, New York were sampled and were given a questionnaire consisting of 37 triads of forced-choices. The choices given represented a counter-balanced presentation of the ten previously listed variables that effect retention and attrition. The directions required the students to check the appropriate response in the space provided on an answer sheet in order to indicate which of the three stimulii

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the student felt he/she had the most control over. Although students were not asked for their name, students were identified as to their sex, campus, class standing, session (day or evening), and approximate grade point average. The variables of campus and class standing were held constant. Sex was matched between the groups of junior and seniors. All students were daytime students.

The variables representing total external locus of control were time spent at work and cost of education. In each instance of their appearance, they scored either a 3, for total lack of control, or a 2, for some degree of control. This verified the validity of the definition of degree of control as well as the truthfulness of student responses. In questions where both variables appeared with one other, the new, third variable got a score of 1, indicating that the student felt he/she had the most control.

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Research indicated that the other eight variables were ones on which the student would be able to impact some degree of control. Thus, the others were not believed to be perceived as constants upon which the student could have no index of control.

Similarly, research indicated that the student's ability to get to school and to join groups or clubs would be two variables that would exemplify instances wherein the student had greater control.

RESULTS

The one factor which Mercy College can readily capitalize upon is its readily accessible location. Students claimed to have the most control over getting to school. The college is accessible by public transportation services: bus or train. Parking, although scarce at peak hours, did not play a role in student response.

Equal to its easy accessibility is its provision of

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clubs or groups for the student body. The social climate and comradery among students has helped keep enrollment up. The "word-of-mouth" advertising has brought many students to the admissions office. Although not surveyed in this study, past polls have given the student body a chance to indicate their feelings about the faculty. Time after time, the students have let it be known that their positive attitude toward faculty based on interaction was a strong point in shaping their attitude toward the institution. Many have provided anecdotes that indicate that faculty interaction has greatly impacted on the student's choice to remain enrolled at Mercy College.

The next two variables which the respondees felt they had the most control over were time to study and place to study. Good study skills, of which time management is an example, would be in practice here.

The remaining four variables are the ones which the

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literature indicates as being perceived by the student as factors that qualify the college experience as being either "good" or "bad." They are the ones students feel they "should" be able to manipulate.

Students' responses indicated that they felt their ability to set their own schedule was seventh in order of variables upon which they could impact. This was immediately followed by their ability to get particular courses or sections. The difference between the two is that in the latter case the student may be opting for a particular instructor or elective.

The remaining two variables are the ones students feel they should be able to impact upon, but indicated that they were unable to extend their control. They indicated little control over ability to get advice from counselors and academic advisors. Unfortunately, the questionnaire was not specific enough in this area. Is it that they could not find or meet with their

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advisors, or that "good" advice was hard to come by? It is apparant that a future study should better phrase this question as it runs counter to previous information about positive interactions.

The least controllable factor was ability in reading and mathematics. This is traditionally viewed as an index of a stable causal agent. It is a sad comment that these skills also represent the ability to communicate effectively. It is further interesting that one might posit that these two would be good predictors of academic achievement and performance.

Having found the rating of most to least control, the hypotheses were inspected. No significant differences were found on the variables that composed the external locus of control composite score. No significant differences were found on the variables that composed the internal locus of control composite score.

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The only significant correlation between subscores was that between getting a "good" schedule and getting "academic advice." Here, the correlation was r = .694. It was interesting that no significant correlation was found between place to study and ability to get to school (r = -.218) nor between place to study and study time (r = -.447).

The main hypothesis, that there was significant difference found between external and internal locus of control was supported ($p<.01$).

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Table 1
One-Way Anova for Internal/External Locus of Control

BETWEEN: SS= 4.322 DF= 1 MS= 4.322 F= 11.127197

WITHIN: SS= 17.091 DF= 44 MS= .388

TOTAL: SS= 21.413 DF= 45

IMPLICATIONS

Retention rates can be increased if the students are given the opportunity to be self-determining. Understanding the effectiveness of the student to gain an internal locus of control on the above cited variables is of great importance (Rogers, Smith, & Coleman, 1978). Clearly, it should be within the mission statement of any institution to provide academic excellence so that mastery of reading and writing can be accomplished. It is well-known that financial support is a great factor in retention. This study has brought to bear the continued need for federal, state, and scholarship backing. Even

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though time at work and cost of education were expected to be factors which were outside the realm of student control, the need to lift this burden from the student in order to allow more time to concentrate on study is apparent. Previous studies have indicated the importance of support services (Frankel, 1982) and the need to structure a positive environment (Frankel & Lindsay, 1981; Frankel & Houtz, 1984). The high correlation between the ability to get a "good schedule" and "academic advice" speaks well of the support services offered at Mercy College. It appears that one area worth investigating is ways to improve the relationship between finding a place to study and finding the time to study. It is also worth questioning why students reported greater ability to get to school than to find places to study.

Still, a future study might replicate this study and introduce a wider variance in the kind of student sampled. An

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analysis of covariance might be done inspecting the effects of year of study, sex, and grade point average.

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